

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

(19)日本国特許庁 (J P)

(12) 公 開 特 許 公 報 (A)

(11)特許出願公開番号

特開平6-18683

(43)公開日 平成6年(1994)1月28日

(51)Int.Cl.⁵

G 2 1 B 1/00

識別記号

庁内整理番号

F I

技術表示箇所

Y 9014-2G

審査請求 未請求 請求項の数1(全 3 頁)

(21)出願番号 特願平4-214458

(22)出願日 平成4年(1992)7月3日

(71)出願人 591152045

道家 正昭

東京都練馬区関町北3丁目41番5号

(72)発明者 道家 治徳

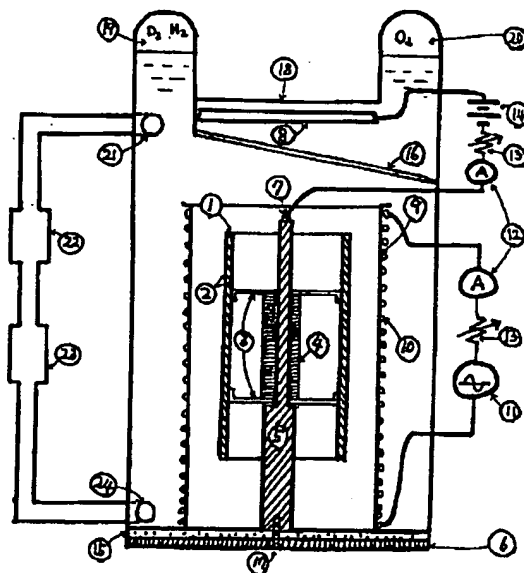
東京都練馬区関町北3丁目41番5号

(54)【発明の名称】 常温核融合用円筒メッキ型振動電極装置

(57)【要約】

【目的】 現在発生しにくい常温核融合を容易に起こす電極。電極に核融合物質をメッキした円筒の振動体を使い高速振動させる。電極である円筒に直接メッキすることにより、振動によるエネルギー損失を減少させ、核融合反応の効率を上げるとともに、電極の構造を簡易化して大量生産を可能として生産性、品質を上げる。

【構成】 ニッケル板の表面にパラジウム、チタンのような常温核融合物質を、直接メッキして薄膜を作り、このメッキされた板を陰極として重水の中に浸して電極としさらに高速振動させて核融合を起こす。高速振動の駆動力には磁歪振動を利用し、振幅等を調整することにより核融合反応を制御することができ、これにより出力も制御できることとなる。



【特許請求の範囲】

【請求項1】 メッキ型電極振動子の表面に核融合発生物質自体をメッキして、振動体自体を電極として共振させながら使用する常温核融合用メッキ型振動電極装置。

【発明の詳細な説明】

【0001】

【産業上の利用分野】動力、発熱、熱源のような熱エネルギーを必要とするあらゆる分野。

【0002】

【従来の技術】いまだに確立された技術無し。但し、平成3年出願された常温核融合用海綿状振動電極がある。

【0003】

【発明が解決しようとする課題】先願の海綿状振動電極は機械結合のため振動伝達エネルギー損失も多く、製造に工数がかかり品質の管理もむずかしい。

【0004】

【課題を解決しようとする手段】本常温核融合用振動電極は駆動用振動体自体にパラジウム、チタンその他常温核融合を起こす物質をメッキするため、振動伝達の損失が少なく効率が良い。また、構造が簡単なので製造も容易となり、大量生産に適合し安価で高品質の電極を生産することが可能となる。

【0005】

【作用】電極自体が高速振動することにより常温核融合が促進される。又、出力エネルギーを制御することが出来る。

【0006】

【実施例】本発明は円筒状の駆動用振動体表面に、常温核融合を生ずるパラジウム、チタンのような物質を薄膜状にメッキして電極としたものである。

【0007】図1は本発明装置の断面図である。図1に於いて、1は厚さ1から3ミリの純ニッケルの板金を円筒状に巻いて作った磁歪振動体電極。2は振動体表面裏面にメッキされたパラジウム、または、チタンの被膜部分。3はその外周部を90度折り曲げニッケル筒の内側にはめ込み銀ロー、または、銅ローでロー付して電解電流を電極に均一に配分する銅製の金具で振動の節点部に密着させてない部の不動板4に止める。不動点4は磁歪へんき用永久磁石5に差し込まれていて、適当なへんき磁場と巻線10により強力な振動を発生する。。

【0008】5は永久磁石で電極に駆動用磁場を与えて磁歪振動を発生させる。6は磁束の通路を兼ねる鉄板製底板。7は永久磁石の頂部に設けた電解電源の端子、8は電解電流プラス電極板。9は振動子に磁歪力を供給する交流巻線の巻棒。10は巻線に巻かれた電線。11は周波数の微調整の出来る磁歪振動駆動用交流電源。12は電流計。13は可変抵抗器で磁歪振幅を調整して核融合反応の発生度合を調整する。14は電気分解用電源。15は含気泡のスポンジで磁歪振動装置を保持する。この装置を重水槽18に設置し、プラス電極8を取り付け

電解電源14で電気分解を始めながら磁歪振動を起こすと、振動電極1の表面にメッキ付けされたパラジウム、または、チタンの表面から重水素または水素ガスが発生し19のガス溜りの集まる。プラス電極からは酸素ガスが発生し20のガス溜りへ集まる。同時に常温核融合も発生して多量の熱を出す。熱せられた重水は21の循環水出口から出て22の熱交換器で熱エネルギーを利用させ、冷えた重水は24の循環水入り口から重水槽に戻って来る。

【0009】

【発明の効果】駆動用振動体に、核融合反応物質であるパラジウム、チタンを直接メッキして電極とする。振動体自体が電極であり、ネジ止めなどの機械結合がなく仕事伝達のエネルギー損失も少なくなっており、作動速度を上げているから振動体自体の作業面積が拡大されたのと同じ効果がある。この振動によって反応面積、反応速度は拡大し、常温核融合の発生確率、反応作用は飛躍的に促進される。さらに、出力エネルギーの制御も振幅を調整すれば、反応確率が上下することによりコントロールされる。

【図面の簡単な説明】

【図1】本題の実施例で、振動子にメッキして作成した常温核融合用電極装置の断面図。

【図2】純ニッケル板の円筒形振動体の全体図で寸法形状を示す。メッキ部分が電極として働き電解電流をメッキされたパラジウムへ配分する見取図。

【図3】振動板電極、電解電極、巻棒、永久磁石、重水槽の設置概略図。

【符号の説明】

1. 純ニッケル板にパラジウム、チタンをメッキした振動型マイナス電極（振動体本体）。
2. ニッケル板の表面にメッキされたパラジウム、または、チタンの薄膜。
3. 節点に溶着した銅製支柱。
4. 支柱3を永久磁石5にとめる不動点金具。
5. 永久磁石棒。
6. 鉄製底板。
7. 電解用マイナス電極端子。
8. 電解用プラス電極
9. 交流巻線の巻棒。
10. 交流巻線。
- 11 磁歪振動駆動用高周波電源。
12. 電流計。
13. 可変抵抗器。
14. 電解用電源。
15. 防振材（気泡性スポンジ）。
16. 半透膜。
17. 永久磁石棒固定用ねじ。
18. 重水槽。
19. 重水素または水素ガス溜り。

DERWENT-ACC-NO: 1994-068684

DERWENT-WEEK: 199409

COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Cylindrical plated vibrating electrode appts.
for room temp nuclear fusion - comprises cylindrical
vibrator or vibrating cathode in which palladium or
titanium is plated on pure nickel plate

PRIORITY-DATA: 1992JP-0214458 (July 3, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
JP 06018683 A	January 28, 1994	N/A
G21B 001/00		003

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP 06018683A	N/A	1992JP-0214458
July 3, 1992		

INT-CL (IPC): G21B001/00

----- KWIC -----

Basic Abstract Text - ABTX (1):

Appts. for room temp. nuclear fusion comprises a cylindrical vibrator (1) or a vibrating cathode in which palladium or titanium being a nuclear fusion active material has been plated on a pure nickel plate. The vibrator is used as an electrode while being resonantly vibrated.

Basic Abstract Text - ABTX (2):

USE/ADVANTAGE - Since the mechanical connection e.g. screw connection can be dispensed with, energy loss is reduced, and the reaction area and reaction velocity are increased by vibrations. Efficiency of nuclear fusion reaction is enhanced.

Title - TIX (1):

Cylindrical plated vibrating electrode appts. for room temp nuclear fusion
- comprises cylindrical vibrator or vibrating cathode in which palladium@ or titanium@ is plated on pure nickel@ plate

Standard Title Terms - TTX (1):

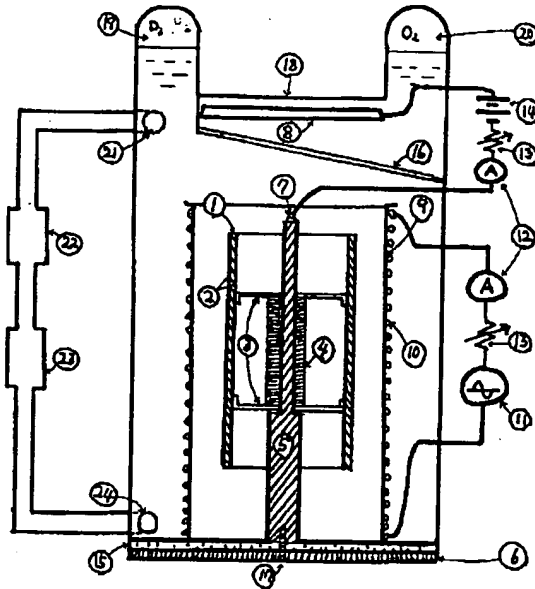
CYLINDER PLATE VIBRATION ELECTRODE APPARATUS ROOM TEMPERATURE NUCLEAR FUSE

COMPRISE CYLINDER VIBRATION VIBRATION CATHODE PALLADIUM@ TITANIUM@ PLATE PURE

NICKEL@ PLATE

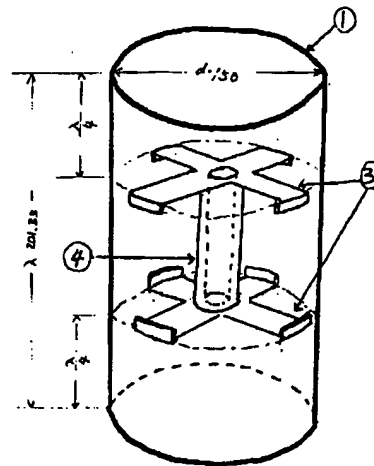
20. 酸素ガス溜り。
 21. 循環水出口。
 22. 熱交換器。
 23. 循環水の成分検定装置。

【図1】

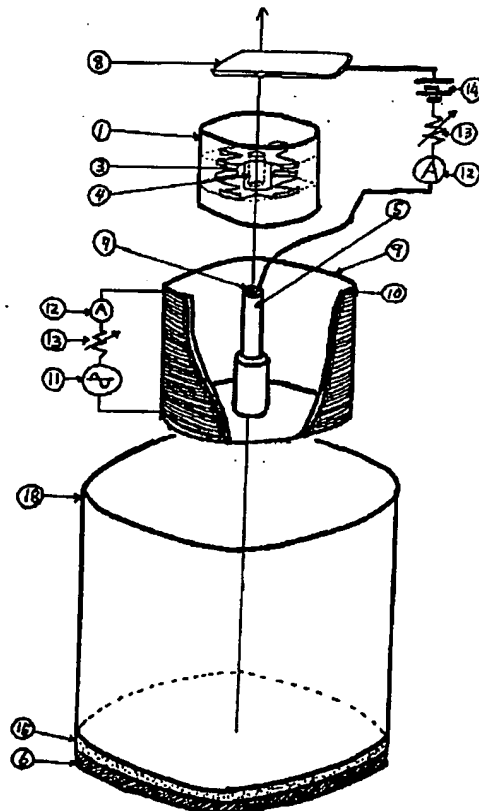


24. 循環水入り口。
 円筒振動子の長さ $\lambda = \text{ニッケル材質中の音波波長}$
 $= \text{ニッケル材質中の音速} \div \text{振動数}$
 $= 604000 \div 30000 = 20.133 \text{ cm}$

【図2】



【図3】



PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-018683
 (43)Date of publication of application : 28.01.1994

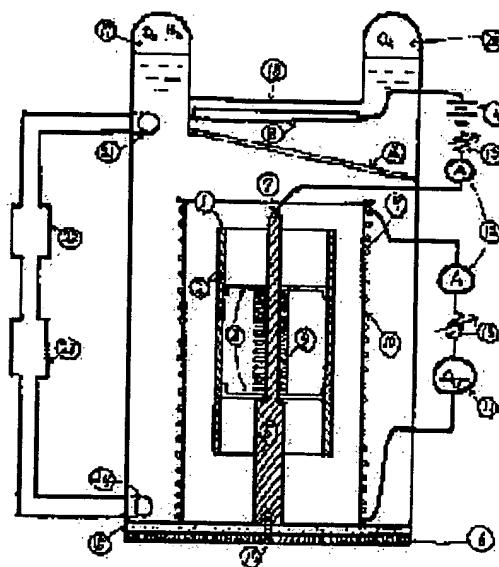
(51)Int.Cl. G21B 1/00

(21)Application number : 04-214458 (71)Applicant : DOKE MASAOKI
 (22)Date of filing : 03.07.1992 (72)Inventor : DOKE HARUNORI

(54) CYLINDER PLATING TYPE VIBRATING ELECTRODE APPARATUS FOR NORMAL TEMPERATURE NUCLEAR FUSION

(57)Abstract:

PURPOSE: To achieve higher probability of generation of normal temperature nuclear fusion and a promotion of reaction by a method wherein the surface of a plating type electrode vibrator is plated with a nuclear fusion generating substance and a vibrating body is used being resonated as electrode to expand a reaction area and a reaction speed.
CONSTITUTION: The apparatus is set on a deuterium tank 18 and a positive electrode 8 for electrolyte is mounted. When a magnetostrictive vibration is caused starting an electrolysis with a power source 14 for electrolyte, deuterium or a hydrogen gas is generated and gathered to a gas reservoir 19 from the surface of a vibration type negative electrode 1 having a pure nickel plate plated with palladium or titanium. An oxygen gas is generated and gathered to a gas reservoir 20 from the positive electrode 8. At the same time, a normal temperature nuclear fusion is caused to generate a large amount of heat. The deuterium heated comes out of a circulation water outlet 21 and the heat energy thereof is utilized with a heat exchanger 22. The deuterium cooled returns to the deuterium tank 18 from a circulation water inlet 24. Since the electrode plated directly with the palladium and titanium as fusion reaction substance is employed as vibrator, the loss in the transmission of vibration is limited thereby promoting normal temperature nuclear fusion.



LEGAL STATUS

[Date of request for examination]
 [Date of sending the examiner's decision of rejection]
 [Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
 [Date of final disposal for application]
 [Patent number]
 [Date of registration]
 [Number of appeal against examiner's decision of rejection]
 [Date of requesting appeal against examiner's decision of rejection]
 [Date of extinction of right]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] Plated type vibrating electrode equipment for cold fusion used while plating the nuclear-fusion generating matter itself on the front face of plated type electrode vibrator and resonating the oscillating object itself as an electrode.

[Translation done.]

*** NOTICES ***

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL FIELD

[Industrial Application] All the fields that need power, generation of heat, and heat energy like a heat source.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] All the fields that need power, generation of heat, and heat energy like a heat source.

[0002]

[Description of the Prior Art] With no still established technology. However, there is a spongy vibrating electrode for cold fusion for which it applied in Heisei 3.

[0003]

[Problem(s) to be Solved by the Invention] Because of machine combination, there is also much oscillating transfer energy loss, the spongy vibrating electrode of point ** requires a man day for manufacture, and management of quality is also difficult for it.

[0004]

[Means for Solving the Problem] There is little loss of oscillating transfer and the vibrating electrode for these cold fusion is efficient in order to plate the matter which starts PARAJUUMU and titanium and other cold fusion on the oscillating object for a drive itself. Moreover, since structure is easy, manufacture also becomes easy and becomes possible [suiting mass production method and producing a cheap and quality electrode].

[0005]

[Function] Cold fusion is promoted when the electrode itself carries out high-speed vibration. Moreover, output energy is controllable.

[0006]

[Example] this invention plates matter like the palladium which produces cold fusion, and titanium in the shape of a thin film to oscillating cylinder-like body surface for a drive, and uses it as an electrode at it.

[0007] Drawing 1 is the cross section of this invention equipment. It is the magnetostriction oscillating object electrode which 1 rolled the sheet metal of 3mm pure nickel in the shape of a cylinder from thickness 1 in drawing 1 , and made. 2 is the palladium plated by the oscillating body surface rear face or the coat portion of titanium. 3 is stopped to the immobility board 4 of the section which is not stuck in the joint section of vibration by the copper metallic ornaments which ***** the periphery section inside a bending nickel cylinder 90 degrees, carry out with a low in a silver low or a copper low, and distribute an electrolytic current to an electrode uniformly. the fix point 4 is inserted in the permanent magnet 5 for magnetostriction ***** , and is suitable -- it does not pass -- it comes and a powerful vibration is generated with a magnetic field and a coil 10 .

[0008] 5 gives the magnetic field for a drive to an electrode with a permanent magnet, and generates magnetostriction vibration. 6 is a bottom plate made from a griddle which serves as the path of magnetic flux. The terminal of the electrolysis power supply which prepared 7 in the crowning of a permanent magnet, and 8 are an electrolytic-current plus electrode board. 9 is the winding frame of the line winding which supplies the magnetostriction force to vibrator. 10 is the electric wire coiled around the coil. 11 is the AC power supply for a magnetostriction oscillating drive which can perform fine tuning of frequency. 12 is an ammeter. 13 adjusts a magnetostriction amplitude with a variable resistor, and adjusts the generating degree of a fusion reaction. 14 is a power supply for electrolysis. 15 holds magnetostriction oscillation equipment by the sponge of a pneumatic bubble. the front face of the palladium by which plating attachment was carried out on the front face of a vibrating electrode 1 when magnetostriction vibration was caused having installed this equipment in the heavy water tub 18, having attached the plus electrode 8, and beginning electrolysis with the electrolysis power supply 14, or titanium to heavy hydrogen or hydrogen gas -- generating -- reservoir ** of 19 -- gathering . From a plus electrode, oxygen gas occurs and it gathers to reservoir ** of 20. Cold fusion is also generated simultaneously and a lot of heat is given off. Heated heavy water comes out from the circulating water outlet of 21, heat energy is made to use with the heat exchanger of 22, and cold heavy water returns from the circulating water entrance of 24 to the heavy water tub.

[0009]

[Effect of the Invention] On the oscillating object for a drive, the palladium and titanium which are the fusion reaction matter are plated directly, and it considers as an electrode. The oscillating object itself is an electrode, there is no machine combination of eye screw ** etc., the energy loss of work transfer has also decreased, and since operation speed is gathered, there is the same effect as the work area of the oscillating object itself having been expanded. Reaction area and a reaction

rate are expanded and the probability of occurrence of cold fusion and a reaction operation are promoted by leaps and bounds by this vibration. Furthermore, if control of output energy also adjusts an amplitude, it will be controlled when response probability fluctuates.

[Translation done.]

1
2

3
4
5
6

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art] With no still established technology. However, there is a spongy vibrating electrode for cold fusion for which it applied in Heisei 3.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] On the oscillating object for a drive, the palladium and titanium which are the fusion reaction matter are plated directly, and it considers as an electrode. The oscillating object itself is an electrode, there is no machine combination of eye screw ** etc., the energy loss of work transfer has also decreased, and since operation speed is gathered, there is the same effect as the work area of the oscillating object itself having been expanded. Reaction area and a reaction rate are expanded and the probability of occurrence of cold fusion and a reaction operation are promoted by leaps and bounds by this vibration. Furthermore, if control of output energy also adjusts an amplitude, it will be controlled when response probability fluctuates.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] Because of machine combination, there is also much oscillating transfer energy loss, the spongy vibrating electrode of point ** requires a man day for manufacture, and management of quality is also difficult for it.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

OPERATION

[Function] Cold fusion is promoted when the electrode itself carries out high-speed vibration. Moreover, output energy is controllable.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EXAMPLE

[Example] this invention plates matter like the palladium which produces cold fusion, and titanium in the shape of a thin film to oscillating cylinder-like body surface for a drive, and uses it as an electrode at it.

[0007] Drawing 1 is the cross section of this invention equipment. It is the magnetostriction oscillating object electrode which 1 rolled the sheet metal of 3mm pure nickel in the shape of a cylinder from thickness 1 in drawing 1, and made. 2 is the palladium plated by the oscillating body surface rear face or the coat portion of titanium. 3 is stopped to the immobility board 4 of the section which is not stuck in the joint section of vibration by the copper metallic ornaments which ***** the periphery section inside a bending nickel cylinder 90 degrees, carry out with a low in a silver low or a copper low, and distribute an electrolytic current to an electrode uniformly. the fix point 4 is inserted in the permanent magnet 5 for magnetostriction ***** , and is suitable -- it does not pass -- it comes and a powerful vibration is generated with a magnetic field and a coil 10 .

[0008] 5 gives the magnetic field for a drive to an electrode with a permanent magnet, and generates magnetostriction vibration. 6 is a bottom plate made from a griddle which serves as the path of magnetic flux. The terminal of the electrolysis power supply which prepared 7 in the crowning of a permanent magnet, and 8 are an electrolytic-current plus electrode board. 9 is the winding frame of the line winding which supplies the magnetostriction force to vibrator. 10 is the electric wire coiled around the coil. 11 is the AC power supply for a magnetostriction oscillating drive which can perform fine tuning of frequency. 12 is an ammeter. 13 adjusts a magnetostriction amplitude with a variable resistor, and adjusts the generating degree of a fusion reaction. 14 is a power supply for electrolysis. 15 holds magnetostriction oscillation equipment by the sponge of a pneumatic bubble. the front face of the palladium by which plating attachment was carried out on the front face of a vibrating electrode 1 when magnetostriction vibration was caused having installed this equipment in the heavy water tub 18, having attached the plus electrode 8, and beginning electrolysis with the electrolysis power supply 14, or titanium to heavy hydrogen or hydrogen gas -- generating -- reservoir ** of 19 -- gathering . From a plus electrode, oxygen gas occurs and it gathers to reservoir ** of 20. Cold fusion is also generated simultaneously and a lot of heat is given off. Heated heavy water comes out from the circulating water outlet of 21, heat energy is made to use with the heat exchanger of 22, and cold heavy water returns from the circulating water entrance of 24 to the heavy water tub.

[Translation done.]

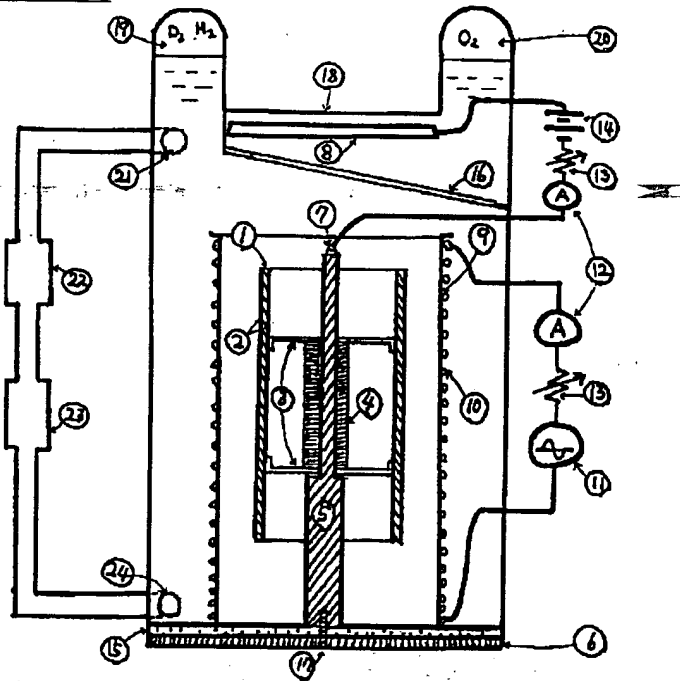
* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

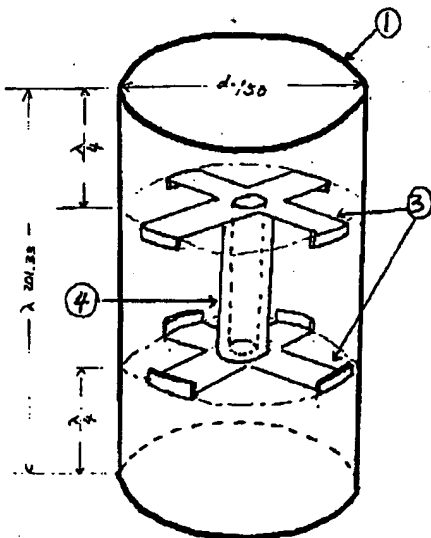
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

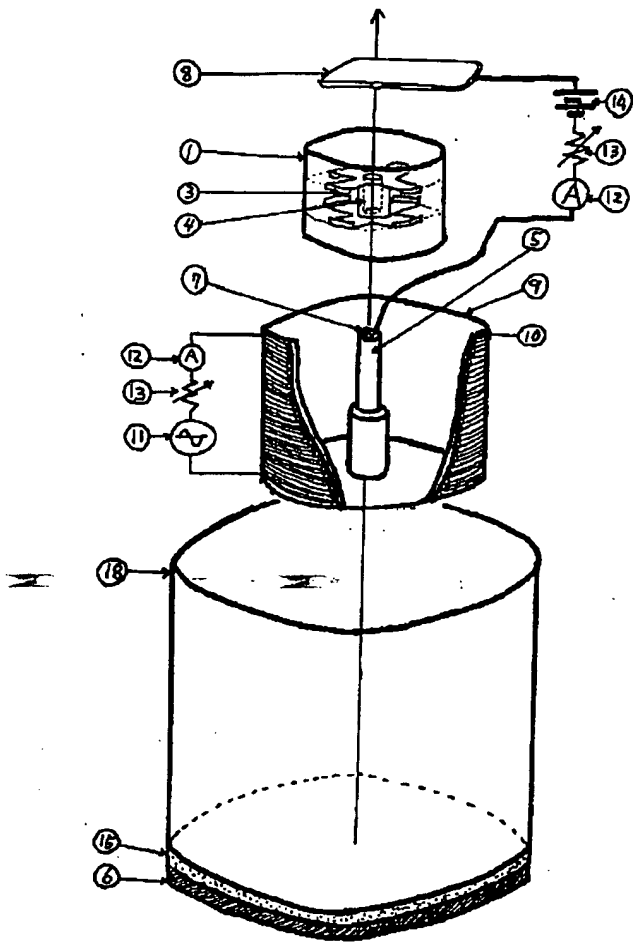
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The cross section of the arrangement of electrode for cold fusion plated and created to vibrator in the example in the main question.

[Drawing 2] The general drawing of the cylindrical shape oscillating object of a pure nickel board shows a size configuration. Sketch drawing distributed to the palladium which the plating portion worked [palladium] as an electrode and had the electrolytic current plated.

[Drawing 3] A diaphragm electrode, an electrolysis electrode, a winding frame, a permanent magnet, the installation schematic diagram of the heavy water tub.

[Description of Notations]

1. Oscillatory-type minus electrode which plated palladium and titanium to pure nickel board (oscillating object main part).
2. Palladium plated by front face of nickel board, or thin film of titanium.
3. Welded copper support.
4. Fix-point metallic ornaments which stop support 3 to permanent magnet 5.
5. Permanent magnet rod.
6. Iron bottom plate.
7. Minus electrode terminal for electrolysis.
8. Plus Electrode for Electrolysis
9. Winding frame of line winding.
10. Line winding.
- The RF generator for 11 magnetostriction oscillating drive.
12. Ammeter.
13. Variable resistor.
14. The power supply for electrolysis.
15. Vibroisolating material (cellular sponge).
16. Semipermeable membrane.
17. The screw thread for permanent magnet rod fixation.
18. Heavy water tub.
19. Heavy hydrogen or hydrogen reservoir **.
20. Oxygen reservoir **.
21. Circulating water outlet.
22. Heat exchanger.
23. Component official approval equipment of circulating water.
24. Circulating water entrance.

The length of cylinder vibrator Acoustic wave wavelength in $\lambda = \text{nickel quality of the material}$
 $= \text{Acoustic velocity in the nickel quality of the material} / \text{Vibration frequency}$
 $= 604000/30000 = 20.133\text{cm}$

[Translation done.]
